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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,144	12/01/2003	Christopher J. Stone	BCS03191	1770
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Motorola, Inc. Law Department 1303 East Algonquin Road 3rd Floor Schaumburg, IL 60196			EXAMINER TAYLOR, JOSHUA D	
			ART UNIT 2426	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.US@motorola.com

Office Action Summary

Application No.

10/725,144

Applicant(s)

STONE ET AL.

Examiner

JOSHUA TAYLOR

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION***Response to Arguments***

Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 6, 9-15, 19 and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yui et al. (Pat. No.: US 6,972,680) in view of Shintani (Pat. No.: US 6,490,002).

Regarding claim 1, Yui disclose **a method for passing an on-screen display over an interface, comprising: detecting at a source device an action requiring an on-screen display at a sink device** (Fig. 9, elements 31, 344, 340, and also element 325, column 12, lines 26-35. The hard disk device 3 is a source device.); **encoding the on-screen display at the source device** (Fig. 9, elements 325 and 326, column 14, lines 21-34. The NTSC encoder encodes the on-screen display; i.e. transforms it from one format to another.); **and passing the encoded on-screen display to said sink device via said interface** (Fig. 9, element 327, column 14, lines 45-52. The on-screen display is passed on to the television, which is a sink device). Yui does not disclose **encoding the on-**

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screen display at the source device as an isochronous MPEG data stream, nor wherein the interface is a **serial interface**. However, in analogous art, Shintani discloses that “before transmission [to a television], the decoded signal with OSD information can be encoded and compressed with a high-level MPEG-2 encoder in the STB [set-top box] to reduce the transmission bandwidth (column 2, lines 37-40),” which would then be sent over a serial interface (column 2, lines 12-17). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yui to replace the NTSC encoder with an MPEG-2 encoder. This would have produced predictable and desirable results, as it would reduce the bandwidth of the signal, which would allow signals such as HDTV (high-definition television) signals, which require a large amount of bandwidth, to be transmitted over existing interfaces such as FireWire (IEEE 1394).

Regarding claim 2, the combined teachings of Yui and Shintani disclose a **method in accordance with claim 1**, and Shintani discloses **wherein: said serial interface comprises an IEEE-1394 interface** (column 2, lines 12-17). This claim is rejected on the same grounds as claim 1.

Regarding claim 6, the combined teachings of Yui and Shintani disclose a **method in accordance with claim 1**, and Shintani discloses **wherein: the isochronous MPEG data stream carrying said on-screen display and an active isochronous MPEG data stream are provided to said serial interface as separate transport streams to be passed to said sink device** (column 2, lines 37-40); and Yui discloses **audio/video control commands are provided to the interface to enable a selection between an active data stream and a data stream carrying said on-screen display**

(Fig. 9, element 31, column 14, lines 21-27. A user can use the remote to request the OSD.). This claim is rejected on the same grounds as claim 1.

Regarding claim 9, the combined teachings of Yui and Shintani disclose a **method in accordance with claim 1**, and Yui discloses **further comprising; receiving said data stream carrying said on-screen display at said sink device; and decoding said data stream carrying said on-screen display to provide said on-screen display** (Fig. 10, element 406, column 20, lines 18-24). This claim is rejected on the same grounds as claim 1.

Regarding claim 10, the combined teachings of Yui and Shintani disclose a **method in accordance with claim 1**, and Yui discloses **wherein: said source device comprises a television terminal** (Fig. 9, elements 3. The hard disk device 3 is a television terminal.); and Shintani discloses **and said sink device comprises a high definition television** (column 2, lines 29-31). This claim is rejected on the same grounds as claim 1.

Regarding claim 11, the combined teachings of Yui and Shintani disclose a **method in accordance with claim 1**, and Yui further discloses **wherein: said on-screen display comprises one of an electronic programming guide, a diagnostic menu, a video-on-demand menu, an advertisement, a pop-up graphic, an alert, a notice, a web page, a stock ticker, or a sports ticker** (column 13, lines 33-42).

Regarding claim 12, the combined teachings of Yui and Shintani disclose a **method in accordance with claim 1**, and Yui further discloses **wherein: said action**

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comprises one of a user driven action or a software driven action (column 12, lines 26-35. The user can use the remote.).

Regarding claim 13, the combined teachings of Yui and Shintani disclose **a method in accordance with claim 1**, and Yui discloses **further comprising: detecting at said source device an action deactivating the on-screen display** (column 14, lines 21-27. A user can use the remote to deactivate the OSD if they not longer desire it); and therefore the combined teachings of Yui and Shintani would have rendered obvious to one of ordinary skill in the art at the time of the invention the steps of **disabling said passing of said isochronous MPEG data stream carrying said on-screen display to said sink device; and providing said active isochronous MPEG data stream to said sink device**, as these would be the steps necessary to disable the OSD.

Regarding claim 14, Yui disclose **a source device capable of passing an on-screen display over an interface, comprising: a tuner adapted for receiving a data stream and graphic data for an on-screen display** (Fig. 9, element 324); **an interface adapted for communication with a sink device** (column 14, lines 45-52); **a processor adapted for detecting an action requiring an on-screen display at said sink device** (Fig. 9, elements 31, 344, 340, and also element 325, column 12, lines 26-35. The hard disk device 3 is a source device.); **and an encoder adapted for encoding said graphic data as a signal carrying said on-screen display** (Fig. 9, elements 325 and 326, column 14, lines 21-34. The NTSC encoder encodes the on-screen display; i.e. transforms it from one format to another.) **to enable said signal carrying said on-screen display to be passed to said sink device via said interface** (Fig. 9, element 327, column 14, lines 45-

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52. The on-screen display is passed on to the television, which is a sink device). Yui does not disclose **encoding the on-screen display at the source device as an isochronous MPEG data stream**, nor wherein the interface is a **serial interface**. However, in analogous art, Shintani discloses that “before transmission [to a television], the decoded signal with OSD information can be encoded and compressed with a high-level MPEG-2 encoder in the STB [set-top box] to reduce the transmission bandwidth (column 2, lines 37-40),” which would then be sent over a serial interface (column 2, lines 12-17). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yui to replace the NTSC encoder with an MPEG-2 encoder. This would have produced predictable and desirable results, as it would reduce the bandwidth of the signal, which would allow signals such as HDTV (high-definition television) signals, which require a large amount of bandwidth, to be transmitted over existing interfaces such as FireWire (IEEE 1394).

Regarding claim 15, the combined teachings of Yui and Shintani disclose a **source device in accordance with claim 14**, and Shintani discloses **wherein: said serial interface comprises an IEEE-1394 interface**. This claim is rejected on the same grounds as claim 14.

Regarding claim 19, the combined teachings of Yui and Shintani disclose a **source device in accordance with claim 14**, and Shintani discloses **wherein: the isochronous MPEG data stream carrying said on-screen display and an active isochronous MPEG data stream are provided to said serial interface as separate transport streams** (column 2, lines 37-40); and Yui discloses **audio/video control**

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commands are provided to said serial interface to enable a selection between said active isochronous MPEG data stream and said isochronous MPEG data stream carrying said on-screen display (Fig. 9, element 31, column 14, lines 21-27. A user can use the remote to request the OSD.). This claim is rejected on the same grounds as claim 1.

Regarding claim 22, the combined teachings of Yui and Shintani disclose a **source device in accordance with claim 14**, and Yui discloses wherein; **said isochronous MPEG data stream carrying said on-screen display is received at said sink device via said serial interface; and said isochronous MPEG data stream carrying said on-screen display is decoded at said sink device to provide said on-screen display** (Fig. 10, element 406, column 20, lines 18-24). This claim is rejected on the same grounds as claim 1.

Regarding claim 23, the combined teachings of Yui and Shintani disclose a **source device in accordance with claim 14**, and Yui discloses wherein; **said source device comprises a television terminal** (Fig. 9, elements 3. The hard disk device 3 is a television terminal.); and Shintani discloses **and said sink device comprises a high definition television** (column 2, lines 29-31). This claim is rejected on the same grounds as claim 1.

Regarding claim 24, the combined teachings of Yui and Shintani disclose a **source device in accordance with claim 14**, and Yui discloses wherein; **said on-screen display comprises one of an electronic programming guide, a diagnostic menu, a**

video-on-demand menu, an advertisement, a pop-up graphic, an alert, a notice, a web page, a stock ticker, or a sports ticker (column 13, lines 33-42).

Regarding claim 25, the combined teachings of Yui and Shintani disclose a **source device in accordance with claim 14**, and Yui discloses **wherein: said action comprises one of a user driven action or a software driven action** (column 12, lines 26-35. The user can use the remote.).

Regarding claim 26, the combined teachings of Yui and Shintani disclose a **source device in accordance with claim 14**, and Yui discloses **wherein: said processor detects an action at the sink device deactivating the on-screen display** (column 14, lines 21-27. A user can use the remote to deactivate the OSD if they not longer desire it); and therefore the combined teachings of Yui and Shintani would have rendered obvious to one of ordinary skill in the art at the time of the invention the steps wherein **said source device disables said passing of said isochronous MPEG data stream carrying said on-screen display to said sink device; and said source device provides said active isochronous MPEG data stream to said sink device**, as these would be the steps necessary to disable the OSD.

Claims 3-5, 7-8, 16-18 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yui et al. (Pat. No.: US 6,972,680) in view of Shintani (Pat. No.: US 6,490,002), and further in view of Knutson et al. (Pat. No.: US 6,788,7100).

Regarding claim 3, the combined teachings of Yui and Shintani disclose a **method in accordance with claim 1**, and in analogous art Knutson discloses **further comprising: providing a data stream carrying said on-screen display with an associated program identifier (PID)** (Figs. 3 and 3A, column 4, lines 27-45); **multiplexing the data stream carrying said on-screen display and said associated PID with an active data stream to provide a multiplexed transport stream** (Fig. 4, column 4, line 46 – column 5, line 7); **and wherein said data stream carrying said on-screen display is passed to said sink device in said multiplexed transport stream** (column 8, lines 52-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yui and Shintani to include multiplexing a PID associated with the OSD in an active isochronous MPEG data stream to provide a multiplexed transport stream. This would have produced predictable and desirable results, in that because the MPEG-2 encoder is being used, as taught by Shintani, the efficiency with which the OSD is transmitted to the sink device from the source device can be increased by multiplexing the streams.

Regarding claim 4, the combined teachings of Yui, Shintani and Knutson disclose **a method in accordance with claim 3**, and Knutson discloses **further comprising: modifying a program map table of the multiplexed transport stream to point to the PID of the isochronous data stream carrying said on-screen display rather than a PID of a video component of said active isochronous MPEG data stream** (column 8, lines 12-15). This claim is rejected on the same grounds as claim 3.

Regarding claim 5, the combined teachings of Yui, Shintani and Knutson disclose **a method in accordance with claim 3**, and Knutson discloses **further comprising: modifying a program map table of the multiplexed transport stream to identify the isochronous data stream carrying the on-screen display as a secondary video source, wherein a video component of said active isochronous MPEG data stream comprises a primary video source** (Fig. 3, column 4, lines 27-32. Knudson uses the term “auxiliary” in relation to the OSD packets, and secondary is a synonym for auxiliary. Therefore, this claim is rejected on the same grounds as claim 3.).

Regarding claim 7, the combined teachings of Yui and Shintani disclose **a method in accordance with claim 1**, and in analogous art Knutson discloses **further comprising: multiplexing said isochronous MPEG data stream carrying said on-screen display with an active isochronous MPEG data stream to produce a multiplexed transport stream wherein said isochronous MPEG data stream carrying said on-screen display is substituted in place of an active video component of said active isochronous MPEG data stream; wherein said isochronous MPEG data stream carrying said on-screen display is passed to said sink device in said transport stream** (Fig. 3, column 4, lines 27-32. Knudson discloses placing the OSD packets in the place of an active video component, i.e. the OSD packet goes where packet 3 would have gone.). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yui and Shintani to include substituting a PID associated with the OSD in an active isochronous MPEG data stream to provide a multiplexed transport stream. This would have produced predictable and desirable results, in that because the MPEG-2 encoder is being used, as taught by Shintani, the efficiency

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with which the OSD is transmitted to the sink device from the source device can be increased by multiplexing the streams.

Regarding claim 8, the combined teachings of Yui, Shintani and Knutson disclose **a method in accordance with claim 7, and Knutson discloses further comprising: maintaining a program identifier (PID) of said active video component as a PID of the isochronous MPEG data stream carrying said on-screen display** (column 8, lines 12-15). This claim is rejected on the same grounds as claim 7.

Regarding claim 16, the combined teachings of Yui and Shintani disclose **a source device in accordance with claim 14, and in analogous art Knutson discloses further comprising: a multiplexer (Fig. 3, element 32); wherein: said encoder provides said data stream carrying said on-screen display with an associated program identifier (PID) (Figs. 3 and 3A, column 4, lines 27-45); said multiplexer multiplexes the data stream carrying said on-screen display and said associated PID with an active data stream to provide a multiplexed transport stream (Fig. 4, column 4, line 46 – column 5, line 7); and said isochronous data stream carrying said on-screen display is passed to said sink device in said multiplexed transport stream** (column 8, lines 52-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yui and Shintani to include multiplexing a PID associated with the OSD in an active isochronous MPEG data stream to provide a multiplexed transport stream. This would have produced predictable and desirable results, in that because the MPEG-2 encoder is being used, as taught by Shintani, the efficiency

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with which the OSD is transmitted to the sink device from the source device can be increased by multiplexing the streams.

Regarding claim 17, the combined teachings of Yui, Shintani and Knutson disclose **a source device in accordance with claim 16**, and Knutson discloses **wherein: said processor modifies a program map table of the multiplexed transport stream to point to the PID of the isochronous data stream carrying the on-screen display rather than a PID of a video component of said active isochronous MPEG data stream** (column 8, lines 12-15). This claim is rejected on the same grounds as claim 16.

Regarding claim 18, the combined teachings of Yui, Shintani and Knutson disclose **a source device in accordance with claim 16**, and Knutson discloses **wherein: said processor modifies a program map table of the multiplexed transport stream to identify the isochronous data stream carrying the on-screen display as a secondary video source, wherein a video component of said active isochronous MPEG data stream comprises a primary video source** (Fig. 3, column 4, lines 27-32. Knudson uses the term “auxiliary” in relation to the OSD packets, and secondary is a synonym for auxiliary. Therefore, this claim is rejected on the same grounds as claim 3.).

Regarding claim 20, the combined teachings of Yui and Shintani disclose **a source device in accordance with claim 14**, and in analogous art Knutson discloses **further comprising: a multiplexer; wherein: said isochronous MPEG data stream carrying said on-screen display is multiplexed with an active isochronous MPEG data stream to produce a multiplexed transport stream wherein said isochronous MPEG data stream carrying said on-screen display is substituted in place of an**

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active video component of said active isochronous MPEG data stream; wherein said isochronous MPEG data stream carrying said on-screen display is passed to said sink device in said transport stream (Fig. 3, column 4, lines 27-32. Knudson discloses placing the OSD packets in the place of an active video component, i.e. the OSD packet goes where packet 3 would have gone.). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yui and Shintani to include substituting a PID associated with the OSD in an active isochronous MPEG data stream to provide a multiplexed transport stream. This would have produced predictable and desirable results, in that because the MPEG-2 encoder is being used, as taught by Shintani, the efficiency with which the OSD is transmitted to the sink device from the source device can be increased by multiplexing the streams.

Regarding claim 21, the combined teachings of Yui, Shintani and Knutson disclose **a source device in accordance with claim 20**, and Knutson discloses **wherein: a program identifier (PID) of said active video component is maintained as a PID of the isochronous MPEG data stream carrying said on-screen display** (column 8, lines 12-15). This claim is rejected on the same grounds as claim 20.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSHUA TAYLOR whose telephone number is (571)270-3755. The examiner can normally be reached on 8am-5pm, M-F, EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hirl can be reached at (571) 272-3685. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Josh Taylor/

Examiner, Art Unit 2426

/JOSEPH P. HIRL/

Supervisory Patent Examiner, Art Unit 2426

May 19, 2009